

Y-12 BULLETIN

A NEWSPAPER BY AND FOR EMPLOYEES OF CARBIDE AND CARBON CHEMICALS CORPORATION IN Y-12

Volume 2, No. 46

OAK RIDGE, TENNESSEE

Tuesday, November 16, 1948



OSCAR SQUIRREL GETS ALL THE LOW DOWN FROM HIS MASTER, George Reece, 13, son of John Reece, Dept. H12E, in the top picture and then talks things over with pals in the lower picture. The pictures were made by John Ramsey, Dept. H12D, at the Reece home on Kentucky Avenue. The three pets playfully get together often, which is definitely unusual for dogs and cats—and especially squirrels.

Laddie, Christopher And Oscar Interesting Pets Of George Reece

George Reece, 13-year-old son of John Reece, Dept. H12E, is the nature boy of his neighborhood, 154 Kentucky Avenue.

During the past four years in Oak Ridge, George has amassed one dog, two cats, two crows, one squirrel, several lizards and many rabbits as pets. The present collection consists of Laddie, the dog, Christopher, the cat, and Oscar the squirrel. (Editor's note: The squirrel is a female).

Color Slide Contest Taken By Don Ross

Don Ross won the Carbide Camera Club November color slide contest on flowers and became the seventh Y-12 employee to win the award and won his second first place in succession.

Foster Calloway, of Y-12, captured the second place award and Virgil Haynes won the third place prize for Y-12. Honorable mention awards were given to Herman Dickerson, of Y-12, and Haynes.

Nominations Are Made

The club held its nominations for officers for the coming year at last week's regular monthly meeting at the club headquarters in the Y-12 East Portal.

Those nominated for president include Harry Bainbridge and Don Ross from Y-12, and Paul Vanstrum of K-25. Vice-presidential nominations went to Nat Stetson and Virgil Haynes from Y-12, and L. T. Adams of K-25. Frank Neill, Gilbert Mellen and John Ramsey, all of Y-12, were nominated for the

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George mounted at least a dozen trees before finding Oscar. The tiny animal's eyes were closed when young George discovered her. He raised her on canned milk fed through an eye dropper. Oscar has now reached the pabulum stage. Oscar, Laddie, and Christopher all play together, as illustrated in the accompanying pictures, which is unusual for the three animals. George and his father constructed a special "squirrel cage" for Oscar. Oscar may leave her living quarters and walk over into the wheel which will turn easily as Oscar begins to climb. This furnishes her with the much needed exercise that she would otherwise be unable to acquire unless turned loose to romp from tree to tree.

George is an eighth-grade student and has many other hobbies besides raising pets. He makes articles out of wood to use around the house, can whip up a delightful meal, stars in basketball and football, and his latest is the soap box derby craze.

Of course George didn't mention girls as one of his hobbies, but some girl will find him a handy man to have around in the future.

Seven Groups Report Perfect Attendance

The Guard Department and the Refining Department have been slugging it out for the top spot in the Major League attendance standing for the past several weeks. The Guards emerged as victors for week ending November 7 with an absentee report of 1.19 per cent. The Refiners were not far behind for second place with 1.22 per cent.

A14N Makes Big Jump

Dept. A14N, Electrical Equipment, Repair and Maintenance, soared from 11th place, which they occupied on the preceding week's report, to third place on the present ladder standing with 1.3 per cent of personnel absent.

The plant average for the period ending November 7 was three per cent. This is .5 per cent higher than the preceding week.

Seven groups in the Minor League made headlines by reporting "all present" on the reporting period. They include Dept. A13S, Tool Department; A12T, Automotive Repair; Dept. A12L, Employment; Dept. A21N, Special Facilities; Dept. B12A, Superintendents; Dept. A12N, General Maintenance Office, Planning and Estimating; and Dept. M13P, Product Processing.

Steam Plant Is Second

Second place in the Minor League was occupied by Dept. M-

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Undivided Loyalty To Country In Maintaining Security Rules Is Required Of All Employees

Undivided loyalty to the United States is the outstanding quality demanded by the Atomic Energy Commission of all employees on atomic energy projects in stressing its security program of secrecy surrounding this work for the protection of the nation.

This security program extends throughout the AEC projects—and includes all employees, be they scientists, engineers, executives, professional men or laborers. The responsibility for maintaining the veil of secrecy about atomic energy work is placed with the individual—who as an American has a responsibility for allegiance to the country and to his fellow employees.

Must Know Responsibilities

In order that the AEC security program be completely effective, it is absolutely necessary that all Y-12 employees, with those of other atomic energy installations, be thoroughly acquainted with their security responsibilities as it applies to their job. This is necessary so that no employee may, even inadvertently, be the cause by which secrets of his work and that of the plant might be allowed to become known to persons or nations unfavorable toward the United States.

Stressing the responsibilities of the individual employee and observance of the entire security program, the Atomic Energy Commission in a booklet, "Maintenance of Security," has declared:

Short Cut May Be Dangerous

"Can it ever be worth while for any man to run the risk of endangering the safety of the country when he could, by following established procedures, protect what he as a responsible citizen should protect? Any short cut he takes may be dangerous. Here is a case from the Commission's files.

"Mr. X was employed in 1943 by one of the contractors of the Manhattan Engineer District. He revealed unexpected ability in working out some highly secret and important projects and was moved upward to a better and still more important job with another of MED's contractors. Then he went away to war. As the war ended and his time for demobilization came near he began, ambitiously, to prepare for the future. He collected advertisements from a trade journal and answered them. He was well aware of the respon-

(Continued on Page 2)

'T-Day' Is Set At Cafeteria November 24

"T-Day" will be thoroughly observed in the Y-12 cafeteria with a special Thanksgiving dinner on Wednesday, November 24, according to George J. McNamee, cafeteria superintendent. "T-Day," of course, will be Turkey Day on the menu and the genial cafeteria superintendent and his staff have arranged a tasty meal for the occasion.

The "T-Day" dinner will be served in the table d'hôte style, that is, the diner gets the entire meal for just one price—that will be 90 cents. Service will be during the regular luncheon hours.

The complete menu for the Thanksgiving dinner follows:

- CHOICE OF ONE**
Roast Young Tom Turkey
Oyster Dressing Giblet Gravy
Cranberry Sauce
or
Breaded Veal Culet, Tomato Sauce
CHOICE OF TWO
Candied Yams
Whipped Potatoes
Buttered Peas
Fresh Cauliflower Au Gratin
CHOICE OF ONE
Stuffed Celery
Waldorf Salad
Stuffed Tomato
Pineapple, Grapefruit and
Orange Segments
CHOICE OF ONE
Mincemeat Pie
Pumpkin Pie
Egg Custard Pie
Layer Cake
Rolls Coffee Hot Tea

BARREL-CLEANING BULLET

Target enthusiasts now may be able to obtain a bullet that cleans the bore of a rifle fouled by ordinary ammunition. Recently patented, the bullet is made of a powdered metal and an abrasive.

Y-12 Employee's 'Dream House' Cost Cut By Using Own Lumber

Veterans who have decided to build their own homes since returning from the service have discovered that the estimated cost will grow and grow if the construction and materials are obtained through contractors.

Bill Prater, a Y-12 physicist of Dept. H12L, started to work on his "dream house" before the war when the nation's economy was on a lower level.

Then came the call from Uncle Sam and Prater served as a pilot on a B-24 Liberator bomber during the war in the Army Air Forces. He left the service as a first lieutenant after flying 20 combat missions over Berlin and other cities in Germany.

Lumber From Own Farm

In many respects Prater was lucky, in having a farm from which he could obtain lumber for his house. In October, 1945, he bought a sawmill which did custom work. Approximately 50,000 feet of pine, poplar and oak was cut and of this 26,000 feet of lumber was

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DEADLINE IS ADVANCED FOR NOVEMBER 30 PAPER

On account of Thanksgiving holiday schedules to be observed next week by printers and engravers, it is necessary to advance the deadline for contributions to The Y-12 Bulletin's November 30 issue. All photographs for that edition must be at the office of The Y-12 Bulletin, North Portal, not later than 4:30 p. m., Monday, November 22, and all news must be submitted before noon, Wednesday, November 24. All you good reporters are asked to observe this schedule for the week beginning next Monday.

Y-12 Bulletin

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New Scientific Terms Are Cited For Y-12 Folks

Interesting new terms recently used in science literature are being brought to the attention of Y-12 employees for their information. They include **nitrojection**, the method by which anhydrous ammonia gas is applied directly to the soil; **nitrogration**, the process of adding anhydrous ammonia to irrigation water as a cheap source of nitrogen fertilizer; and **zerography**, a completely "dry" method of photography or photocopying which employs an electrostatically charged plate and was invented by C. F. Carlson.

Degree In Three Weeks

Is it possible to get a Ph.D. degree in three weeks? We, too, were amazed when we read the interesting article on the life of Dr. J. Robert Oppenheimer in the November issue of Time magazine. This is must reading.

Safer Bleaching Agent Found

Agene (nitrogen trichloride), which has been used for bleaching flour for the past 25 years, may be replaced by chlorine dioxide, it was revealed at hearings held recently by the United States Food and Drug Administration. Testimony revealed that in clinic tests conducted by various independent laboratories nitrogen trichloride caused running fits in dogs, whereas chlorine dioxide caused no such reaction. Chemical tests on humans indicated that nitrogen trichloride did not give similar results. However, the witnesses felt the material should be replaced by chlorine dioxide in order to be on the safe side.

Listening Group Meets Thursday

An interesting cross-section of musical literature will be presented by Miss Margaret Pflueger at the next meeting of the Oak Ridge Music Listening Group at 8 p.m., Thursday, November 18, in the East Lounge of the Ridge Recreation Hall. The programs are open to the public and there is no admission charge. Refreshments are served during intermission.

The first half of the program will be opened with one of Mozart's "Divertimenti" and rounded out by three songs by Maggie Teyte, Metropolitan Opera star. The second half of the program will consist of excerpts from Bach's "St. Matthew's Passion."

Hospital List

The following Y-12 employees were patients at the Oak Ridge Hospital last week: George W. Boggs, Dept. A12G; C. F. Holloway, Dept. A12W; George W. McCarty, Dept. A12G; Effie D. Woods, Dept. B12L; William L. Allen, Dept. H12L; G. C. Henderson, Dept. A13J.

SYMPATHY EXTENDED

All Y-12 employees extend sympathy to Winnie Miller, of the Insurance Office, over the death last Wednesday of her grandfather, Milton S. Cook, 90, who died at the home of a daughter, Mrs. R. E. Miller, Vonore, Tenn. Funeral services were held last Friday noon at Maynardville.

North and South Dakota both were admitted to the Union November 2, 1889.

AEC, Legion Housing Group Hold Meeting

Howard P. Doyle, of the Company industrial relations staff, represented Carbide and Carbon Chemicals Corporation in a joint meeting of the Atomic City Post, No. 199, American Legion, housing committee and Atomic Energy Commission representatives last week.

The Legion committee, headed by C. E. Boone, post commander, was named a few weeks ago to study the general housing picture in Oak Ridge, entertain suggestions and carry those with merit to the appropriate officials for consideration.

Legion Aid Appreciated

Russell Field, manager of the Commercial Services Division for the Atomic Energy Commission and chairman of the meeting, told the Legion representatives that "your practical approach to the housing problems and your fine spirit of helpfulness and cooperation is extremely gratifying to us here who are wrestling with the housing shortage and its accompanying problems."

Fields suggested that the committee continue its work and that it meet periodically to discuss mutual problems and their possible solutions.

Committee To Continue Work

Boone assured the group that the committee would be glad to continue both its service to the community as a clearing house for requests and suggestions and its cooperative role with local housing officials.

Paul Pennington, of Y-12, is a member of the Legion committee. All persons wishing to contact the committee should do so through Will Webb, Post Service Officer.

Chorus To Resume Rehearsals Tonight

The Oak Ridge Community Chorus will resume rehearsals at 7:30 p. m. tonight, Tuesday, November 16, in Room 32, Jefferson Junior High School. Director Riley Barrett has urged any Y-12 employee who wishes to join the group to report at the rehearsal session, declaring that additional bass and tenor singers are especially needed by the group.

The chorus gave its initial concert of the season last Friday night at the Oak Ridge, High School auditorium.

Carbide Wives Set Thanksgiving Party

The Carbide Wives will give a Thanksgiving Party at 7:30 p.m., Wednesday, November 17, in the East Lounge of the Ridge Recreation Hall. There will be an election of four new members to the executive board. Hostesses will be Mrs. Walter Barto, chairman; Mrs. Salvatore Zangri, Mrs. John Mahoney, Mrs. Owens Wheye, Mrs. Richard Aiken and Mrs. J. M. Schmitt.



Five births were reported to Y-12 families at the Oak Ridge Hospital last week. Parents were Mr. and Mrs. Arthus Marquardt, a girl, November 9; Mr. and Mrs. Julius J. Holzknicht, a boy; Mr. and Mrs. Dillard Spangler, a boy, and Mr. and Mrs. William Scott, a boy, all born on November 5; Mr. and Mrs. Sidney Anderson, a girl, November 6.

LOOK—NO SPOKES

A spokeless automobile steering wheel has been invented by a Wisconsin man, according to the National Patent Council. The steering column is near the front of the wheel instead of at the center. Gear teeth within the rim engage a pinion wheel on the steering column.

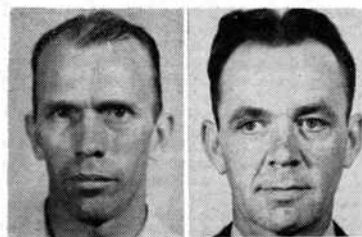
Strictly Confidential..

'Way down South in de land of cotton, good times dar am not forgotton, look away, look away—and look here. Daisy Ward, Dept. B12L, sure gets around. Here she is shown with her husband, Roy,



K-25 employee, on a recent vacation at their cotton plantation at Paragould, Ark., where Daisy reported she picked 14 pounds of the staple

Two Employees Have Excellent Work Records



Ledford Hawk

Among the many fine attendance records existing in Y-12 are those possessed by Ralph Ledford, Dept. A21N, and Fred J. Hawk, Dept. M12P. Both are residents of Lenoir City and drive from there to work every day.

Ledford, a pipefitter, was employed in Y-12 August 9, 1943, and has not been absent since then. Bad weather that surfaced roads with ice and snow last winter caused him to be late two times.

Hawk was employed May 9, 1944, and now is a chief operator, and also boasts of not being absent during his time of work here with the exception of an excusable absence for jury duty recently. The same bad weather that caused Ledford to be tardy resulted in Hawk also being late to work on three occasions.

week end shopping in Chattanooga.

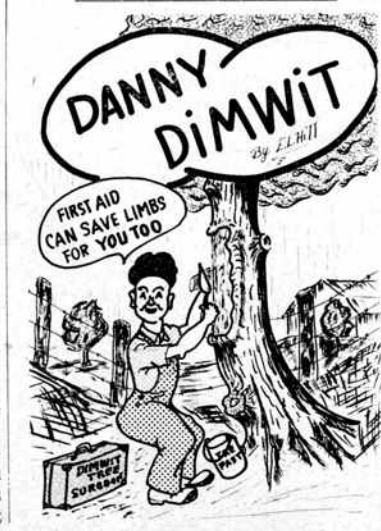
Vince Moore, Dept. A12W, is temporarily in Dept. M'P's . . . A speedy recovery is wished to C. S. Holloway, who is ill in the Oak Ridge Hospital. . . M. B. Bridges is back on the job after an illness . . . Mildred Reagan recently entertained guests from Kingsport, Tenn.

Crit Barker, Dept. A12M, is back to work after an illness.

Dept. A13W announces two of its employees had additions to their families recently . . . W. L. Scott, Jr., became father of a son, W. L. Scott III, born November 5 and A. P. Marquardt, a daughter, Michele Ilene, born November 9 . . . George Fisk spent a quiet vacation in Oak Ridge.

Dept. A16J sends a speedy recovery wish to Elizabeth Johnson, who is on the sick list.

Dept. A14N hopes to see Rufus Dunn, who is ill, back to work soon.



Undivided Loyalty To Nation Required

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sibility placed upon him by the MED, and later on, when interviewed, wrote:

Experienced Considerable Care

"I experienced considerable care to make certain that the descriptive material in my letters regarding my work for the Manhattan Engineer District did not reveal any information that I considered classified. At no time, in my estimation, did I reveal any detailed technical information regarding any of the processes utilized by the Manhattan Engineer District."

"One of the companies that received the letter, well aware of the regulations guarding security, promptly mailed a copy of his letter to the Commission. The Commission discovered that woven into his prose were definite hints that could lead a qualified engineer directly to important secret processes at the heart of the manufacture of fissionable material. Mr. X was dangerously ignorant; that is he did not know that he did know."

Responsibility Is Heavy

"The responsibility that rests on an employee who leaves the Atomic Energy Project is a heavy one, more important than he perhaps realizes. Although the part he played with the project may have been insignificant, he and hundreds like him could inadvertently reveal, piece by piece, the complete picture of the jigsaw puzzle. The American Society of Newspaper Editors, although they are eager to spread the knowledge of atomic energy, are well aware of the necessity for security and of the dangers that they might bring to the United States by attempting to publish any articles on atomic energy without checking with the Commission. In a report by the Commission, the society has this pertinent remark:

"The sum of our atomic knowledge is thousands of specific bits of knowledge. Most of these are not only embedded in documents, but are running around all over the country in thousands of memories. Innocent breaches of security may come from disclosures which seem harmless and unimportant in themselves but which make a pattern if all the right pieces are picked out and put together."

Wants To Educate Public

"For the security of his country and for his own peace of mind, the man who has left the project should check with the declassification organization of his former employment in relation to the work of the Commission every bit of writing that might reveal classified information. He will undoubtedly feel that he has a responsibility to the community in which he lives to share the knowledge which he has gained. The Commission wishes to encourage individuals to give speeches, and to aid in the necessary public education on atomic energy. There is only one caution. Check beforehand!"

The Y-12 Security Office, North Portal, telephone 7125, is at the service of all employees to provide complete information on security regulations and procedure in the plant.

Address Changes Should Be Given

Every effort is made in Y-12 to correctly keep the mailing address and telephone number of all employees so that not only will the Y-12 Bulletin be promptly delivered but also that other plant communications and telephone calls may be expedited. However, a check of new address cards recently distributed in an effort to bring the mailing list up to date show that approximately 150 employees have failed to keep their addresses current. Every employee is urged to check with his supervisor to see that the new cards correctly list his home address and telephone number. If any employee has not yet filled out the new cards, it is urged that this be done at once.

Additions To Y-12 Technical Library

MATHEMATICS

QA 601—Carslaw, H. C., "Operational Methods in Applied Mathematics," second edition, London, Oxford University Press, 1948.

QA 601—Eisenhart, Luther Pfahler, "Continuous Groups of Transformations," Princeton, N. J., Princeton University Press, 1933.

QA 432—McLachlan, N. W., "Modern Operational Calculus; with applications in Technical Mathematics." London, Macmillan, 1948.

PHYSICS

QC 173—Physical Society, "Report of An International Conference on Fundamental Particles and Low Temperatures Held at the Cavendish Laboratory, Cambridge, on July 22-27, 1946." Vol. 1-2. London, Physical Society, 1947.

QC 451—Gaydon, A. G., "Dissociation Energies and Spectra of Diatomic Molecules," New York, Wiley, 1947.

CHEMISTRY

QD 453—Gucker, Jr., Frank Thomas, "Physical Chemistry," New York, American Book Co., 1944.

QD 31—Elder, Scott and Kanda, "Textbook of Chemistry," N. Y., Harper and Brothers, 1948.

QD 95—Someren, Ernest H., "Spectrochemical Abstracts," Vol. III. London, Adam Hilger, 1947.

QD 466—Bainbridge, Kenneth T., "Isotopic Weights of the Fundamental Isotopes," National Research Council, 1948.

TECHNOLOGY

TH 9111—National Fire Protection Association, "Proceedings of the 52nd Annual Meeting," Washington, D. C., May 10-13, 1948. Boston, National Fire Protection Association, 1948.

TH 9115—National Fire Protection Association, "Advance Reports to the 52nd Annual Meeting," Washington, D. C., May 10-13, 1948. Boston, National Fire Protection Association, 1948.

TN 948 M2—Comber, A. W., "Magnesia as a Refractory," London, Griffin and Co., Ltd., 1937.

TP 812—Landrum, Robert D. and Carter, Harry D., Comps. Van Schoick, Emily C., ed., "Bibliography and Abstracts of Literature on Enamels," American Ceramic Society, Easton, Pa., 1929.

TP 986.5—Rohm and Haas Company, "Working With Plexiglas," Philadelphia, Rohm and Haas Co., 1947.

TP 157—Pieters, Ir. H. A. J., "Veiligheid en Chemie" (Safety and Chemistry). Heerlen, Safety Council of the State of Mines, 1947.

TP 790—Ceramic Data Book, "Ceramic data Book with Catalogs and Buyers' Directory of Equipment and Materials," Chicago, Industrial Publishers, Inc., 1948.

TP 807—National Research Council, "Data on Chemicals for Ceramic Use," Washington National Research Council, 1943.

TP 808—Leach, Bernard, "A Potter's Book," N. Y., Transatlantic Arts, Inc., 1946.

TR 750—Crowther, J. A., "Handbook of Industrial Radiology," London, Edward Arnold and Co., 1944.

TS 210—Metal Industry: Handbook and Directory. 1948 edition. London, Louis Cassier Co., 1948.

SOCIAL SCIENCE

HD 7809—Commerce Clearing House, Inc., "Labor Law Course," Second edition. N. Y., Commerce Clearing House, Inc., 1948.

HD 7809—Commerce Clearing House, Inc., "New Labor Law: Labor Management Relations Act, 1947, with explanations," N. Y., Commerce Clearing House, Inc., 1947.

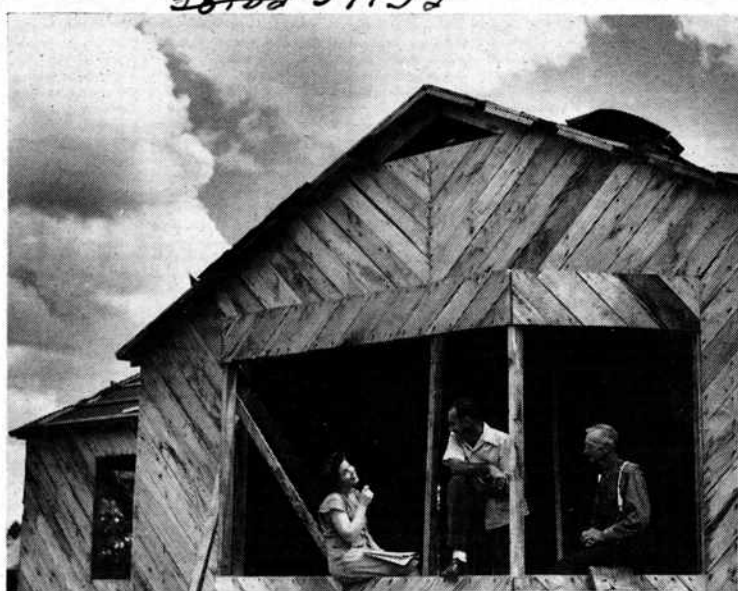
SCIENCE

Q 219—Bray, A., "Russian-English; Scientific-Technical Dictionary," N. Y., International University Press, 1945.

"You're charged with throwing your mother-in-law out the window. Guilty or not guilty?"

"Guilty, Your Honor. But I did it without thinking."

"That's no excuse. Do you realize you might have hit somebody on the head?"



MR. PRATER BUILDS HIS "DREAM HOUSE." Top left picture shows Mrs. William Prater pointing out to her husband, a Y-12 physicist of Dept. H12L, added improvements to meet her fancy in the early construction stage of their home as Prater's father listens intently. Top right is the after view of the "before and after" sequence of the Prater home. Mrs. Prater and Grandfather Prater are teaching young Carole Lynn Prater the easy way to beautify a home with flowers. Bottom picture shows Carole Lynn giving the dream house the once over as Mrs. Prater beckons from the door.

Y-12 Employee's 'Dream House' Cost Cut By Using Own Lumber

(Continued From Page 1)

lected for the house.

Prater had planned on the total cost of his residence, located in Jefferson City, at being near \$8,500. This estimate was about \$2,000 less than it would run if he had been compelled to buy the finished lumber.

Construction Began In 1947

The lumber which Prater had cut was air dried for a year, then it was dressed, sized and matched. Actual construction of the "dream house" began in March 1947. He aided the workers on week ends in excavating for the basement with a scraper.

Completion of the house was accomplished in 18 months with the total cost reaching, you guessed it,

Seven Y-12 Groups Report Perfect Attendance Marks

(Continued From Page 1)

12S, Steam Plant, with .4 per cent of its personnel absent. Dept. A12A, Janitors, topped the No. 3 slot with a report of .5 per cent.

The complete record of Y-12 absenteeism for the week ending November 7 by departments follows:

MAJOR LEAGUE				
More than 50 Employees Scheduled				
Dept.	Percentage Absent	11-7-48	10-31-48	Standing
A12G	1.19	1	2	
B12H	1.22	2	1	
A14N	1.3	3	11	
A17N	1.7	4	8	
A16N	2.05	5	9	
A12S	2.09	6	7	
A20N	2.2	7	3	
M12P	3.78	8	4	
A12M	3.79	9	14	
B12C	4.4	10	12	
A13N	4.5	11	6	
B13L	4.7	12	10	
H12L	5.6	13	5	
H12E	5.7	14	15	
B12L	6.97	15	13	
H12D	7.00	16	16	

Group absentee percentage was 3.2 per cent, .7 per cent higher than the preceding week.

MINOR LEAGUE				
15-49 Employees Scheduled				
Dept.	Percentage Absent	11-7-48	10-31-48	Standing
A13S	0.0	1	1	
A12T	0.0	1	1	
A12L	0.0	1	1	
A21N	0.0	1	1	
B12A	0.0	1	7	
A12N	0.0	1	9	
M13P	0.0	1	10	
M12S	0.4	2	3	
A12A	0.5	3	11	
A12R	1.5	4	13	
A14J	1.6	5	2	
A13W	2.1	6	16	
A13T	2.2	7	5	
A15N	3.6	8	12	
M12M	4.0	9	4	
A12W	4.2	10	6	
A19N	6.3	11	14	
A12D	6.7	12	8	
A12P	10.8	13	15	

Group absentee percentage was two per cent, .6 per cent lower than the preceding week.

The plant average for the week ending November 7 was three per cent, .5 per cent higher than the preceding week.

\$12,500. But there is an explanation that goes along with that over-estimated cost. Every man wants his home built in "dream house" fashion and Bill Prater was no exception. Besides, he had plenty of added suggested improvements given to him by his lovely wife and young daughter, Carole Lynn.

Improvements Are Added

Among these improvements to the original plans were solid mahogany doors, a full-size basement with a game room, two bedrooms, a workshop and storage room.

The house has a two-car garage. At its widest part the house is 46 feet, with an overall length of 76 feet and the interior is finished in natural white oak.

However the actual cost still figures several thousand dollars less than a contracted home would have been to the Praters. Besides, the cost includes a \$2,000 furnace.

Landscaping Not Completed

The landscaping for the yard has not been done nor has the concrete been laid for the garage floors. This work is scheduled for completion next month. Prater has leased his home for one year until definite plans can be made for his future which might hold a law degree from Harvard University. Mrs. Prater and Carole Lynn plan on living in the house while Bill goes to college.

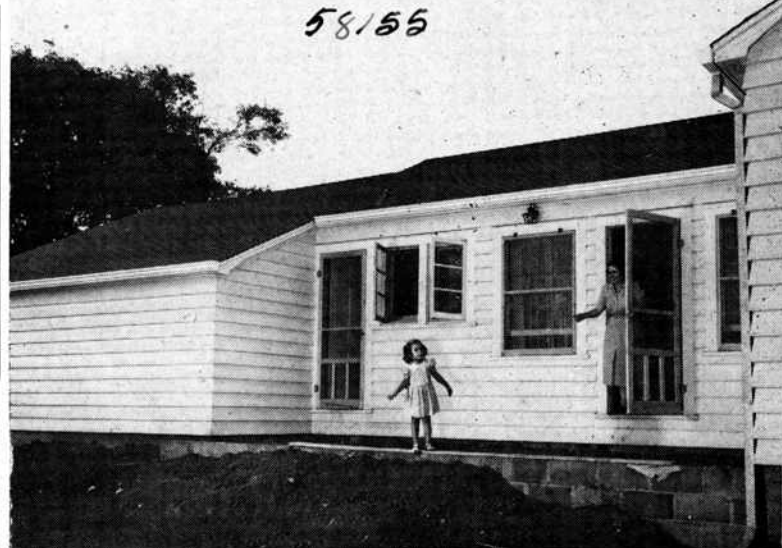
Prater received his pre-law training from Carson-Newman College during the years 1938-42. He and his family now reside in Oak Ridge at 220 Waddell Circle.

Dr. Poor To Join Institute Staff

The Oak Ridge Institute of Nuclear Studies has obtained the services of Dr. Russell S. Poor, dean of the graduate school of Alabama Polytechnic Institute and one of the South's leading educators, as chairman of its university relations division, it has been announced by Dr. William G. Pollard, executive director of the institute. Dr. Poor will join the institute about January 1 and will have charge of the graduate training and research participation programs, through which the research facilities of Oak Ridge are made available to American scientists.

Every day there are approximately 1,690 fires in the United States that take 22 lives. Of these, 720 are home fires.

About 3,500 persons are burned to death annually in farm fires. This is one-third of the total loss of life by fire in the country.



Magic Of Steel Products Results From 'Tailoring'

When a magician comes to town with his bag of tricks, he usually has a rabbit at his beck and call. Now steelmen also can virtually "pull rabbits" out of their hats, but seldom are the rabbits seen by the public at all. Yet the magic of their products is widespread in the girders of great bridges, in automobiles and planes. Yes, nearly all steels today are specially "tailored" by alloys to do all sorts of seemingly miraculous jobs—fighting such foes as wear, corrosion, stress and shock.

Special Wheel Steel Selected

Many have watched big transport planes sit down on an airfield. But how many know that the landing of these large aircraft puts such a stress on the wheels that it was difficult to find a material tough enough to stand the punishment for any length of time, until a special steel was put on the job. The engineers of a large company making landing wheels for such craft selected a steel containing chromium, silicon, manganese and zirconium—all of them alloys made by firms that are members of the Union Carbide Corp. family. They obtained a combination of toughness, strength and lightness of weight that made the performance of the alloy steel wheels far above those that they replaced.

The monster-like dredges seen biting big chunks out of the earth are able to bear the shock and stresses they meet because their teeth, gears and other vital parts also are made of steels containing such alloys as manganese and chromium. These alloys impart the strength and toughness needed to resist the shock and wear on these heavily loaded parts.

Tungsten Tips Drillers' Tools

Way down into the oil wells, almost three miles deep, goes another alloy—tungsten. It is a part of the abrasion-resistant material known as tungsten carbide, which is almost as hard as a diamond and thus is ideal for drillers' tools that are subjected to extreme wear. The blades of jet engines and gas turbines also have tungsten in them, for it produces an alloy that stays hard even under extremely high temperatures. When such terrific punishment is in the offing,

a bit of columbium is a good thing to have in the steel for improving creep strength—that is, to prevent permanent distortion of the turbine blades.

Another all-around worker in the alloy steel picture is vanadium, which goes into such things as airplane propeller blades, locomotive parts, springs and even kitchen knives. Vanadium is widely used in the railroad and automotive industries for many moving parts requiring high strength and resistance to severe shock.

Zirconium Alloys Are Toughening

The zircon stones that sparkle on many a lady's finger are "first cousins" to the ores used for the zirconium alloys that help to give toughness to rock drills, rails and axles.

Although we have told just part of the story, this brief glimpse of the work of some of our alloys does show that we have a hand in the steelman's "magic-making," which have given us all so many remarkable things made of steel.

Color Slide Contest Is Won By Ross; Calloway Second

(Continued from Page 1)

office of secretary-treasurer of the club.

The annual election of officers will be held at the club's meeting on December 14 at 7:30 p.m. The December contest on color slides on landscaping will be judged at this meeting.

Entries for the December contest must be in by December 7. There were 24 slides entered in the November contest. All entries may be left at Taylor's Photo Shop or at the home of Virgil Haynes, 114 East Holston Lane.

The Lewis and Clark expedition reached the mouth of the Columbia River November 7, 1805, 18 months after leaving St. Louis.

Theodore Roosevelt, the first President to leave the United States while in office, left for Panama November 9, 1906.

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SPORTS

Second Round Begins For D League Bowlers

The D League keglers opened their second round matches last week with the Strikers and Splinters taking an early league lead by stomping their opponents for four points each. The Strikers topped the Termites and the Splinters won over the Scotties.

The Pinbusters rolled over the Old Men for three points while dropping one and the Overheads tabbed the Woodchoppers for three points.

The Strikers rolled high in the scratch series class with 2,319 pins and high handicap single game with 999 pins.

Joe Gill, of the Overheads, bowled high individual scratch game with 208 and high handicap single game with 208.

All Stars And Rippers Tied For Loop Lead

Although taking but one high scoring honor in their play last Thursday night in the B League, the All Stars turned in consistent bowling scores to sweep four points from Maintenance and jump into a tie for the loop lead with the Rippers. The All Stars posted the top high handicap series score of 2,917 in gaining their four points.

Russell Alston, of the Wolves, set a season's high mark for a single game with handicap by scoring a neat 267. He was aided in this feat by rolling a single scratch game of 223, which is pretty fair country bowling in anybody's league. Alston's scoring enabled his teammates to take high handicap series honors with 1,058. Elmer Greene, of the Cubs, wangled a 663 series score with handicap for top spot in this category.

The All Stars managed to climb to their lofty position as the Rippers and Woodpeckers, next in line, split their scraps against the Comets and Cubs. An even split also was staged by the Wolves and Dept. A12M pinmen and the Mules and One-91 quintets took three points from the Head Pins and Bums.

Feminine Bowlers Of Y-12 Outroll Roane-Anderson Five

The Y-12 varsity women bowlers captured two out of three tilts from the Roane-Anderson lassies last week, taking two games by wide margins and barely losing the other. The Y-12 girls roll Knox Blueprint this week and hope to better their present eighth place standing.

The scoreboard showed Y-12 687-596-663 to 620-598-586 for Roane-Anderson. Inez Reece topped the victors with games of 159-119-161 for a total of 439. Other Y-12 scores included Margaret O'Neal 388, Nancy Doane 385, Evelyn Jago 368, and Olyne Poindexter 354.

32 Scientists Enroll In Institute Course

Industrial laboratories throughout the country are represented among the 32 participants in the fourth in a series of one-month courses offered by the Oak Ridge Institute of Nuclear Studies in techniques of using radioisotopes safely and efficiently. Three other courses in the series will be given during the coming months.

Five major oil research groups, two from the rubber industry, five from the metals industry, two from biological research foundations and several persons from the chemical industry are represented among the participants.

Robert Fulton, inventor of the steamboat, was born November 14, 1765.



THE PRETTY KEGLERETTES pictured above are members of the Kemp team in the Y-12 Women's Bowling League. Shown from left to right are Katherine Jenkins, Emma Puckett, Evelyn "Fiz" Tucker and Pearl Hutchison.

Women's Loop Lead Is Shared By Two Teams

The Controllers and Wholly Rollers held a two-team tie for top place in the Y-12 Women's Plant Bowling League after the pins had subsided last Thursday night. The Controllers split two points with the Kemps while the Wholly Rollers grabbed three from the Hi Balls and the Beta Pick-Ups divided a pair with the Dodgers.

Ethel Bow's 222 handicap single game for the Wholly Rollers and Dale Walker's 566 series handicap topped the individual scoring for the night. The Beta Pick-Ups posted high single game team score with a 718.

Women Cagers Drill Tonight At Glenwood

Coach Bill Davis, of the Y-12 women's basketball team, stated that the turnout for the practice sessions held last week was extremely gratifying both in quality and quantity of players.

More than 15 girls reported to last week's practice sessions and more are expected to attend the work-outs tonight and tomorrow night.

Tonight's session will be held at the Glenwood school gymnasium at 7:30 o'clock and tomorrow night's drill will be held at the Fairview school gymnasium at 8 o'clock.

A. A. U. rules, which differ from regular high school and collegiate rules, are used in the Oak Ridge City League for girls. There will be six players on the team and positions have not been given yet for the approaching season so all Y-12 girls are urged to attend the practice sessions this week in order to make the team.

Y-12 Pinmen Hold Loop Spot By Splitting With S & B Team

The Y-12 varsity bowlers stayed in third place in the Oak Ridge City Bowling League standing as a result of last week's play in which the plant keglers split four points with the S & B pinmen.

Allards remained in first place but K-25 moved in with them to join in a first place tie. Addressograph eased ahead of the Y-12 men to occupy second place.

The opponents of Y-12 toppled more pins in the series by hitting 2,346 to 2,306 for Y-12.

Y-12 players and their scores follow: Cobble 407, ZaBenco 548, Tibbatts 486, Duncan 409, and White 454.

League standing follows:

Team	W	L	Team	W	L
Allards	26	10	Clinch Radio	17	19
K-25	26	10	ORNL	16	20
Addressograph	24	12	S & B	14	22
Y-12	23	13	Grocers	12	24
Monroe	18	18	Fairchild	4	32

Knucklebusters Win To Hold C League Lead

The Knucklebusters held onto their two-point lead in the C Bowling League, while the Materializers moved up into third place after stripping the alleys of the Guards for four straight points.

Shut-out games were numerous in the night's play as the Knucklebusters did it to the Moles and the Bldg. 9206 keglers let the Thin Pins have a dose of the same medicine.

The Hooks topped the Orphans for three points while dropping one in the other league game.

The Hooks won the league honors for the night while topping the Orphans. They bowled 1,082 pins for high team handicap single game of the season, and 2,928 pins for team high handicap series game in the night's play.

Galloway, of the Hooks, bowled individual high handicap series and single games with 673 and 255 pins respectively.

Bell Telephone Laboratories Man To Address Metals Group

R. D. Heidenreich, member of the technical staff of Bell Telephone Laboratories, will address the Oak Ridge Chapter of the American Society for Metals on Wednesday, November 17. The meeting will be held at 8 p.m. in the West Lounge of Ridge Hall.

The topic of Heidenreich's address is "Electron Methods in the Structure of Metals."

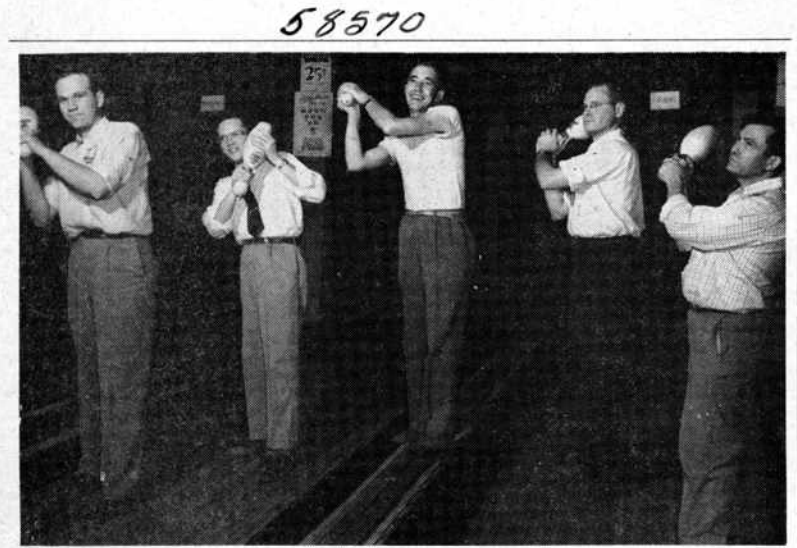
Heidenreich received his technical education at Case Institute of Technology. After pursuing graduate studies he joined the physical research staff of the Dow Chemical Co. where he conducted investigations of metals and surfaces using electron microscopy. In 1945 he became a member of the technical staff of Bell Telephone Laboratories where he has continued his investigations of metals with electron methods. He is the originator of most of the replica techniques currently used by electron microscopists in the study of surfaces and the author of a number of papers dealing with the surface structure of metals at magnifications much higher than those obtainable with the optical microscope.

Hiccoughs Cured The Hard Way

Mrs. Mabel Boling, Houston, Tex., cured her hiccoughs the hard way, a recent news dispatch from the Texas city declared.

She was nursing her ailment while sitting in an automobile at a filling station. Then two cars collided in the street. One of them swerved and hit the gasoline pump in the filling station, knocking it over and igniting the fuel. The rampaging car then rammed into a post, the rear of Mrs. Boling's car and the station doorway, breaking a plate glass window.

Mrs. Boling was cured.



DEPT. H12L LEAGUE BOWLERS ARE "BATTING UP" for an about face on the balls as shown by the above picture. Pictured from left to right are Bill Chapman, Bill Leyshon, Freeman Waddell, Edward Scofield and J. W. Raleigh.

Bums And Oilers Vie For Plant Tag Grid Title

The Bums and Oilers were slated to tangle in the first of a series of games for the Y-12 plant tag football loop title last Friday night at Oakwood Park and the second game of the best two-out-of-three series was to have been played last night.

The Bums won the second half play last week in a game that didn't show any life until the last half. Both clubs played hard defensive ball during the entire first half.

Wallis, McPherson Combine Clicks

The last half saw the Bums take to the air with Wallis passing to McPherson for the first tally. Another pass from Wallis to McPherson provided the extra point to give the Bums a 7 to 0 lead.

Late in the third quarter, the Oilers rushed Wallis in his own end zone, resulting in a fumble, which the Bums quickly recovered for two points and a safety for the foe.

Punts Help Both Teams

Wallis and Lines were both excellent in the punting department, getting both teams out of the hole several times during the last period. The Bums intercepted an Oilers pass on their six-yard line and the clicking combination of Wallis to McPherson scored again for the Bums to ice the game after the same duet scored the extra point to win for the Bums with the final score reading Bums 14—Oilers 2.

Beetle Baums Bump Pickers, Monopolize Individual Honors

The Beetle Baums plucked the Cherry Pickers for four points to a goose egg last Thursday night in the Dept. H12D League alley activities but the Pickers managed to stay on top of the loop standing by a single point. In the other clash the Jim Crows knocked the Apple Knockers for three points to one.

In scoring their triumph the Beetle Baums scored high scratch single game with 680 and boosted this total to 943 with their handicap. Individual high scratch single game honors went to Frazier, of the same team, with 187. His handicap gave him top honors in this class with 228.

Standings In Plant Bowling Leagues

B LEAGUE					
Team	W	L	Team	W	L
All Stars	28	12	Mules	20	20
Rippers	28	12	Cubs	18	22
W'peckers	27	13	Bums	15	25
Comets	21	19	Head Pins	18	26
Maintenance	21	19	Dept. A12M	13	27
Wolves	21	19	One-91	13	27
C LEAGUE					
Team	W	L	Team	W	L
K'busters	28	12	Thin Pins	21	19
Bldg. 9206	26	14	Hooks	18	22
Mat'lizers	24	16	Guards	14	26
Moles	22	18	Orphans	7	33
D LEAGUE					
Team	W	L	Team	W	L
Strikers	4	0	Old Men	1	3
Splinters	4	0	Woodchoppers	1	3
Pin Busters	3	1	Scotties	0	4
Overheads	3	1	Termites	0	4
H12L LEAGUE					
Team	W	L	Team	W	L
Cherry P'kers	15	9	Jim Crows	10	14
Beetle Baums	14	10	Apple Knoc'rs	9	15
W LEAGUE					
Team	W	L	Team	W	L
Controllers	8	4	Hi Balls	7	5
Wholly Rollers	8	4	Dodgers	3	9
Beta Pick Ups	7	5	Kemps	2	10

ORNL Cuemen Put Y-12 Lads Behind Eight Ball In Match

Doom was written all over the tables for the Y-12 pocket billiard team in last week's play against the ORNL cuemen as they toppled the Y-12 men off the top perch in the four-team league to take command of the coveted position themselves.

The Y-12 cuement salvaged two of the six points from the victors and are behind by one point in the loop race. The plant team was scheduled to meet Roane-Anderson last night and tangle with K-25 on November 22 at the Cue and Cushion in Middletown with game time starting at 7:15 p.m.

The X-10 five amassed 341 points to 293 for Y-12. W. B. Motley and Bill Walker both won games with 75 points for Y-12 to top Hurt with 63 and Cook with 53 for X-10.

The winners from X-10 include Massie over Red Weist 75-65, Gost over H. Burnett 75-48 and Odum over P. Braden 75-30.

For added safety, never place a small rug at the head or foot of stairs. In fact, whenever using them they should be anchored with floor tacks or with rug-anchoring materials.